AMSAT News Service Weekly Bulletins
Issue: ANS-025
Date: 1998-01-25
Sources: amsat-ans-1998-ans-025-weekly.txt

BJ Arts, WT0N, Amsat News Service editor
WT0N's Homepage http://www.qsl.net/wt0n
Daniel (Dan) James, NN0DJ, Amsat News Service Assistant editor

SB SAT @ AMSAT $ANS-025.01
MEETING HELD WITH ESA

HR AMSAT NEWS SERVICE BULLETIN 025.01 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 25, 1998
TO ALL RADIO AMATEURS BT
BID: $ANS-025.01

On January 20, Phase 3D Project Leader and AMSAT-DL President, Dr. Karl Meinzer DJ4ZC met with ESA officials in Paris to discuss the possible launch of the Phase 3D satellite on the third test flight of the Ariane 5 launch vehicle, AR-503.

Dr Meinzer gave a short presentation on AMSAT, its background and the history of cooperation it has enjoyed with ARIANE for many years. He then outlined the development history of Phase 3D and expressed a strong desire for a launch on AR-503.

The ESA officials indicated willingness to consider a launch on AR-503, but made no commitments. They stated that they are also investigating the possibility of placing another payload on the mission that would preclude launching Phase 3D. Nevertheless, ESA did agree to
to make an initial study of the configuration that would be associated with Phase 3D, were it to be launched on AR-503 along with several other payloads. They also agreed to investigate other possible launch opportunities, including ARIANE 4s.

Another meeting is scheduled for the end of February, at which time it is hoped that more definite information will be available..

Dr. Meinzer said on returning to Marburg following the 20 January meeting, "ESA is making bona-fide efforts to identify a launch for us. I think we stand a good chance."

Dr. Meinzer and AMSAT-NA officials agreed that our job now is to get Phase 3D completed and tested, so that it will be ready to go if ESA gives the "green light". AMSAT-NA Executive Vice President, Keith Baker KB1SF likened this to going to the airport to "stand by" in order to get on a fully booked flight. "That strategy often pays off", he added.

[ANS thanks Dr. Karl Meinzer DJ4ZC for the material that went into the preparation of this bulletin.]

/EX

SB SAT @ AMSAT $ANS-025.02
AMSAT/ARRL SATELLITE WORKSHOP

HR AMSAT NEWS SERVICE BULLETIN 025.02 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 25, 1998
TO ALL RADIO AMATEURS BT
BID: $ANS-025.02

The ARRL will sponsor a satellite workshop at the Orlando Hamcation

in February. Steve Ford, WB8IMY, along with Barry Baines, WD4ASW, and other AMSAT experts will present "Amateur Satellites -- Today and Into the Future" on February 13th in Orlando.

Space for this workshop is limited and there is a small fee for the session. For more information please contact:

Rosalie White, WA1STO
ARRL
225 Main St.
Newington, Connecticut
06111

e-mail: wa1sto@arrl.org

[ANS thanks the ARRL for this information]

/EX

SB SAT @ AMSAT $ANS-025.03
ARRL HONORS NASA

HR AMSAT NEWS SERVICE BULLETIN 025.03 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 25, 1998
TO ALL RADIO AMATEURS BT
BID: $ANS-025.03

The ARRL has honored NASA for its commitment to youth and to ham radio. The award thanks NASA for giving Amateur Radio the opportunity to involve youngsters in educational activities using both the Shuttle Amateur Radio and SAREX programs.

The League presented the award to NASA Director Dan Goldin and NASA Headquarters education officials.

[ANS thanks the ARRL and Newsline for this information]

/EX

SB SAT @ AMSAT $ANS-025.04
PORTABLE ANTARCTICA STATION A SUCCESS

HR AMSAT NEWS SERVICE BULLETIN 025.04 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 25, 1998
TO ALL RADIO AMATEURS BT
BID: $ANS-025.04

Ronald Ross, KE6JAB, reports his recent trip to Antarctica with a portable digital satellite station was a huge success. The station, located at 80 degrees south and 81 degrees west, consisted of VHF and UHF eggbeater style antennas, an Icom IC-821H transceiver, a Kantronics KPC-9612 TNC and a laptop computer. Powered by a sealed lead acid battery, the station featured a solar panel recharging system.

KE6JAB transmitted over 70 messages of which 16 were JPEG images, using (initially) UO-22 and (then) KO-25. The messages and images were posted on Ron's website, which received over 700 hits during the operating period.

Ron said the portable satellite station generated a lot of interest among the non-amateur people at the base camp, indicating many were amazed at the ability of an amateur "network" to provide such communications on a voluntary basis, especially when the official communications at the camp experienced problems with the commercial

satellite links. "I think Amsat and the amateur satellite community has great resources both in technical knowledge and operating skills," Ron said.

KE6JAB reports three people contributed greatly to the success of the portable station; Roy Welch, W0SL and Jerry Smyth, N8ULU, downloaded the satellite messages, and Ed Anderson, KE6IZN updated the website. Ron also would like to thank the many hams that answered his technical questions months ago when he first thought about taking a portable station on his trip.

Images of the KE6JAB trip can be viewed at Ron's website using the following URL address;

http://www.thistle.org

[ANS thanks Ronald Ross, KE6JAB, for this information]

/EX

SB SAT @ AMSAT $ANS-025.05
UHF SHUTTLE FREQUENCIES

HR AMSAT NEWS SERVICE BULLETIN 025.05 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 25, 1998
TO ALL RADIO AMATEURS BT
BID: $ANS-025.05

Ron Parise, WA4SIR, informs the Amsat News Service that the following UHF frequencies are available on the shuttle transceiver.
296.8 - Used during launch/landing, and EVA 3-way duplex ops
279.0 - Used during EVA for 3-way full duplex comm between suit-1, suit-2, and the orbiter.
259.7 - Launch/landing, EVA 3-way duplex ops
243.0 - Standard UHF emergency freq.

The mode is AM as is standard in the aircraft band.

However, the launch comm is now changing. In the past the orbiter communicated on UHF through Bermuda during ascent. The new plan is to roll the orbiter to heads-up very early in the ascent to get the upper s-band hemi's pointed up and communicate with MCC through TDRS on s-band. WA4SIR, doesn't know whether the transition to s-band results in the UHF transmitter being turned off or they just keep transmitting on both. It's easy enough to do either.

[ANS thanks Ron Parise, WA4SIR, for this information]

/EX

SB SAT @ AMSAT $ANS-025.06
WEEKLY SATELLITE REPORT PT 1

HR AMSAT NEWS SERVICE BULLETIN 025.06 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 18, 1998
TO ALL RADIO AMATEURS BT
BID: $ANS-025.06

MIR
American astronaut David Wolf, KC5VPF, will be replaced by Andy Thomas, KD5CHF, During the January STS-89 Mission. The PMS 2-meter radio station Was temporarily moved from the core module and installed in the Priroda Module. This move was performed to take advantage of the backup antenna.

The crew also installed a new modem a few weeks ago. But due to the crews heavy work load, all of the TNC parameters have not been properly configured. Mirex would like the stations monitoring the PMS to please be patient while they make adjustments. The PMS is NOT fully operational at this time.

During the recent space walk, the crew was planning on examining the primary PMS antenna located on the Mir-core module, If time permits. The crew suspects there may be a loose coax cable to the primary PMS antenna. If the antenna checks out fine, the crew will still leave The PMS station connected to the backup antenna until the March time frame. This is because the crew will be very busy with many other experiments and will not have much time for a low priority experiment such as the PMS.

The only limitation they have with the current backup antenna, is the Diplexor filter which is required for the SAFEX and PMS to share the same antenna. This would prevent any 70 cm experimentation from the Kenwood TM-733.
[ANS thanks the MIREX team for this information]

SAFEX, MIR 70 cm Repeater (Uplink 435.750 MHz FM, Downlink 437.950 MHz FM, subaudible tone 141.3 Hz)
During last weeks momentary Mir attitude control computer shutdown. The Mir crew temporarily shutdown the Amateur Radio station for a few days. The PMS system was turned back on, but it is not known when the crew plans on turning on the SAFEX Repeater.

MIREX has created an Internet Web page containing information regarding Mir and the various Amateur Radio experiments taking place from the space station. The pages are still "under construction", but some good information can be gathered from what has been put together. URLs include the following:

http://www.ik1sld.org/mirex.htm OR
http://www.ik1sld.org/mirex

http://www.geocities.com/~ik1sld/mirex.htm OR
http://www.geocities.com/~ik1sld/mirex
[ANS thanks the MIREX team for this information]

RS-12
(Uplink, 21.21-21.25 MHz and 145.91-145.95
MHz, CW/SSB, Downlink 29.41-29.45 MHz, CW/SSB.
The 15m ROBOT uplink is on as well.
Operational, now in mode KA.
KP4SQ has been on RS12 twice weekly for a month now with good signal
his name is Pedro and his QSL manager is KD8IW
[ANS thanks Rusty Hack, NM1K, for this news.]

RS-15
(Uplink 145.858-145.898 MHz CW/SSB, Downlink 29.354-29.394 MHz CW/SSB)
Operational.

RS-16
At this time only the beacons are on.
Transponder information on RS-16.
 Uplink = 145.915 - 145.948 MHz
 Downlink = 29.415 - 29.448 MHz
 Beacons = 29.408 and 29.451 MHz
 Pwr 29 MHz Down = 1.2 W /4 W

 Beacon 1 = 435.504 MHz
 Beacon 2 = 435.548 MHz

Pwr 435 MHz Beacons = 1.6 W

RS-17
Not Operational. RS-17 has been officially declared
dead. New Sputnik-40 QSL Address QSL Information is as follows:
QSL Information for SWL (Short Wave Listener)

Sergey Samburov (RV3DR)
P.O. Box 73
Korolev-10 City
141070, Russia

There is another address given for QSLing on the Sputnik home page
(http://www.oceanes.fr/~fr5fc/angspoutnik.html, the English
language version), which states under "Listeners" and I quote: "PSE send
your reports (envelope + IRC) at FR5KJ radio club. FR5KJ
radio club will send you back a diploma.

FR5KJ radio club
College Jules Reydellet
103 rue de la Republique
97 489 Saint Denis Cedex
Reunion Island.

[ANS thanks the MIREX team for this information]

AO-10
(Uplink 435.030-435.18 MHz CW/LSB, Downlink 145.975-145.825 MHz
CW/USB)
Operational. See accompanying bulletin's information.

AO-27
(Uplink 145.85 MHz FM, Downlink 436.792 MHz FM)
Operational
[ANS thanks Michael Wyrick, N4USI, AO-27 Control-op, for this update]

FO-20
(Uplink 145.9-146.0 MHz CW/LSB, Downlink 435.8-435.9 MHz CW/USB)
Operational. FO-20 in mode JA continuously.
Amsat UK VHF Net regulars Malcom G7NFO and Roy G7RVM reported
contacts into North America on FO-20. G7NFO worked Egon
VE6EGN and G7RVM made his first transatlantic contact on a LEO working
Burt VE1AMA. If you are operating on FO-20/29 please stay with it right
To zero degrees elevation. Stations in England will be listening .
[ANS thanks John Heath, G7HIA, Net Controller and
Kazu Sakamoto, JJ1WTK, for this report]

FO-29
Voice/CW Mode JA
(Uplink 145.9-146.0 MHz CW/LSB, Downlink 435.8-435.9 MHz CW/USB)
Digital Mode JD
(Uplink 145.85, 145.87, 145.910 MHz FM, Downlink 435.910 MHz FM 9600
baud BPSK)
This info is from JARL Web page. It's an official announcement
from Fuji command station. Originally in Japanese, translation
into English is by Kazu Sakamoto, JJ1WTK.

A memory error was detected in onboard computer system of Fuji-3 (FO-29).
Restarting and software reloading is being carried out but is taking a
long time due to poor uplink efficiency. The operation sked of FO-29
until he end of January is canceled. The bird will stay in analog mode
(mode JA)continuously. A new operation schedule for February will be
announced on Jan.26 or later.
[ANS thanks Kazu Sakamoto, JJ1WTK, for this report.]

/EX

SB SAT @ AMSAT $ANS-025.07
WEEKLY SATELLITE REPORT PT 2

HR AMSAT NEWS SERVICE BULLETIN 025.07 FROM AMSAT HQ
SILVER SPRING, MD, JANUARY 18, 1998
TO ALL RADIO AMATEURS BT
BID: $ANS-025.07

KO-23
(Uplink 145.85, 145.9 MHz FM, Downlink 435.175 MHz FM,
9600 Baud FSK)
KO-23 downlink efficiency is below 70%, but it is still useful.
[ANS thanks Jim Weisenberger, AA7KC, for this report]

KO-25
(Uplink 145.980 MHz FM, Downlink 436.5 MHz FM, 9600 Baud FSK.)
KO-25 operating normally.
[ANS thanks Jim Weisenberger, AA7KC, for this report]

OSCAR-11
(Downlink 145.825 MHz. FM, 1200 Baud PSK. Beacon 2401.500 MHz)
Operating normally.
OSCAR-11 REPORT 14 January 1998
During the period 16 December 1997 to January 14 1998 the satellite
has continued to provide good signals on its 145.826 MHz. beacon,
although occasional interference has been caused by DOVE, which
transmits near this frequency.

Interest in the mode-S beacon continues, as stations prepare for P3D.
Four reports have been received. Stacey W4SM reported S3-4 signals
compared to an S2 noise level. Dove was S8. He uses a two foot
diameter G3RUH dish with 2.5t helix, and SSB converter. Manfred
XE1ZBO in Mexico City has received strong signals, using a Conifer
partial dish, and SSB converter. Mark KE7NS reports good signals,
above an S7 noise level. He uses a 21 element beam, Aircom pre-amp,
and Drake converter. Many thanks for those reports.

The telemetry is nominal. Internal temperatures have continued to
fall, and at the present time are 6.4C and 4.2C for battery and
telemetry electronics respectively. This fall in temperature is due
to increasing solar eclipse times, which are expected to reach a
maximum in early February.

Two WOD surveys have been transmitted during the period. Both are of
channels 10, 20, 30, 40 (+Y, -X, +X array currents, array voltage),
and are dated 14 December and 06 January respectively. They show
the effect of solar eclipses, on array currents, and voltage.

The new format AMSAT-UK bulletin, No. 114, is now being transmitted.
This contains details of amateur satellite frequencies and modes of
operation. It is intended to be a 'fixed' message, which won't
become out of date too quickly. It may however be changed from time
to time, possibly at monthly or greater intervals. Regular listeners
will note that the new bulletin makes a different sound compared to
previous bulletins, rather like a new form of binary data. This is
because the bulletin contains regularly placed blocks of spaces,
instead of random text characters.

The operating schedule is unchanged.

ASCII status (210 seconds)

ASCII bulletin (60 seconds)
BINARY SEU (30 seconds)
ASCII TLM (90 seconds)
ASCII WOD (120 seconds)
ASCII bulletin (60 seconds)
BINARY ENG (30 seconds)

There are also additional status blocks after each bulletin is transmitted, and between ASCII TLM and WOD.

The mode-S beacon is ON, transmitting an unmodulated carrier, but telemetry indicates that it has partially failed, and delivering half power. This beacon is a useful test source for those testing mode-S converters, prior to the launch of P3-D. It is considerably weaker than DOVE, which should be used for initial testing. Any reports of reception on 2401 MHz. would be most welcome. Please e-mail g3cwv@amsat.org.

The 435.025 MHz. beacon is normally OFF. However it can sometimes be heard when the satellite is being commanded by ground control, ie. within range of Guildford, UK. When the 435 beacon is transmitting, the 145 beacon is normally OFF. The data transmitted is mainly binary.

OSCAR-11 users are welcome to visit my web site. It contains some software for capturing data, and decoding ASCII telemetry and WOD. There is an archive of raw data (mainly WOD) for analysis, which is continually being expanded, as new data is captured. The URL is -

http://www.users.zetnet.co.uk/clivew/
[ANS thanks Clive Wallis, G3CWV, for this information]

AMSAT-OSCAR-16 (PACSAT)
(Uplink 145.9, 145.92, 145.94, 145.86 MHz FM, 1200 bps Manchester FSK
Downlink 437.0513 MHz SSB, 1200 bps RC-BPSK 1200 Baud PSK.
Beacon 2401.1428 MHz.)
Operating normally. AO-16 S band transmitter is off.
uptime is 1224/07:02:51. Time is Sat Jan 24 12:32:02 1998
+X (RX) Temp 0.603 D RX Temp -1.212 D
Bat 1 Temp 5.444 D Bat 2 Temp 5.444 D
Baseplt Temp 4.234 D RC PSK BP Temp 1.814 D
RC PSK HPA Tmp 1.814 D +Y Array Temp 3.024 D
PSK TX HPA Tmp 0.603 D +Z Array Temp 8.470 D
RC PSK TX Out 0.686 W

Total Array C= 0.362 Bat Ch Cur=-0.041 Ifb= 0.058 I+10V= 0.332
TX:010C BCR:81 PWRC:59F BT: A WC:25 EDAC: 4

Information about telemetry values and WOD files can be found at
http://www.arrakis.es/~ea1bcu/wod.htm
[ANS thanks Miguel A. Menendez, EA1BCU, for this report]

DO-17(DOVE)
(Downlink 145.825 MHz FM, 1200 Baud AFSK. Beacon 2401.220 MHz)
Operational.
The DOVE S band beacon is on. The frequency is 2401.220 MHz. The 2 meter transmitter is also on, 145.825 MHz. Telemetry is being sent about every 30 seconds. A scanned image of the Dove's QSL at 425DXNews Web Site:
http://www-dx.deis.unibo.it/htdx/
[ANS thanks Jim White, WD0E, for this update]

WEBERSAT (WO-18)
(Downlink 437.104 MHz SSB, 1200 Baud PSK AX.25)
WEBERSAT-OSCAR-18 celebrated eight years in space on January 22, 1998 at

0135 UTC! The satellite is gathering and sending weekly Whole Orbit
Data. The PHOTO task has been uploaded and new photos are being taken
and broadcast weekly. Since WO-18's return to service is suspected to
be seasonal in nature, you
might want to give the bird a try before too much time passes. [WO-18
[ANS thanks the WO-18 Command Team for this news.]

LUSAT-OSCAR-19
(Uplink 1200 bps Manchester FSK Uplinks: 145.84, 145.86, 145.88,
145.90 MHz FM, Downlink 437.125 MHz SSB, 1200 bps RC-BPSK.)
Operating normally.
uptime is 948/21:52:17. Time is Sat Jan 24 11:57:27 1998
+X (RX) Temp -3.235 D RX Temp 0.131 D
Bat 1 Temp 3.496 D Bat 2 Temp 3.496 D
Baseplt Temp 2.935 D RC PSK BP Temp 0.131 D
RC PSK HPA Tmp -0.991 D +Y Array Temp 4.618 D
PSK TX HPA Tmp -1.552 D +Z Array Temp -6.039 D
RC PSK TX Out 0.986 W

Total Array C= 0.295 Bat Ch Cur= 0.018 Ifb= 0.033 I+10V= 0.206
TX:01A BCR:80 PWRC:36E BT:3C WC: 0

General information and telemetry samples can be found at:
http://www.arrakis.es/~ea1bcu/lo19.htm
[ANS thanks Miguel A. Menendez, EA1BCU, for this report]

UO-22
(Uplink: 145.900 or 145.975 MHz FM. Downlink 435.120 MHz FM
9600 Baud FSK)
UO-22 is operating normally.
[ANS thanks Chris Jackson, G7UPN/ZL2TPO, Ground station and
Operations Manager of UO-22, for this report]

IO-26 (ITAMSAT)
Uplink 145.875, 145.900, 145.925, 145.950 MHz FM, Downlink 435.822 MHz
SSB, 1200 Baud PSK)
No report at this time.

[Please send your Satellite or News reports to ANS Editor BJ Arts,
WT0N, via e-mail, at bjarts@the-bridge.net or to wt0n@amsat.org
or visit WT0N's Homepage http://www.qsl.net/wt0n]

/EX

--
BJ Arts
Amateur callsign: WT0N
ARMY MARS callsign: AAR5EL
Grid Square EN-37mk
Hibbing, Minnesota. U.S.A.
e-mail bjarts@the-bridge.net or wt0n@amsat.org
Homepage http://www.qsl.net/wt0n/
Amsat News Service Bulletin Editor